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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,781	12/10/2003	Michael Wayne Brown	AUS920030341US1	6902
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IBM CORPORATION (VE)			EXAMINER	
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P. O. BOX 162485				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/732,781	Applicant(s) BROWN ET AL.
	Examiner ATIBA O. FITZPATRICK	Art Unit 2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 July 2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7,9-15,17-23 and 25-30 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7,9-15,17-23 and 25-30 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/06)
Paper No(s)/Mail Date 05/07/2008
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Response to Arguments

Objections to the title and abstract are withdrawn in light of amendments.

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment. In response to Applicant's arguments for the prior statutory double patenting rejections, claims are now rejected under nonstatutory (obvious-type) double patenting as indicated below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 9 includes the limitation "storage medium having instructions", but this does not require that the instructions are stored on the medium. Note that the claim must explicitly state that the instructions or program is stored on the computer readable medium.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7, 9-15, 17-23, and 25-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 9, 17, and 25 include the limitation "to improve a speaker's speech making ability". It is unclear how this system can improve a speaker's ability. How can this system improve a person's ability? If the system provides feedback to the speaker from the listeners, it is still up to the speaker to utilize the feedback to improve his/her own ability. Thus, in this case, the system allows the speaker to improve his/her own ability. The only other interpretation that the office can perceive that would suffice would be if this was some sort of biomedical device that directly alters a speaker's voice or speech characteristics (such as volume). Still, in this case, one might argue that the speaker's ability is not improved by the system, but instead, the system would compensate for the speaker's ability. Also, note that the excerpt is understood to be intended use or purpose because there is no positive recitation that necessitates that the following is required to be performed: MPEP 2106. Therefore, the phrase does not receive patentable weight.

Also, claim 9 includes the limitation "storage medium having instructions", but this does not require that the instructions are stored on the medium. However, it is not clear what is meant by "having". Explicitly stating that the instructions are stored on the medium would render the limitation definite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 9, 12, 17, 20, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020101505 (Gutta) in view of USPN 7117157 (Taylor) and USPGPubN 20020116197 (Erten).

As per claim 1, Gutta teaches a method of using stored audio and video data recorded at a conference as a speech analysis tool comprising (**Limitations present only within the preamble are not given patentable weight**):

the facial expression being exhibited by one or more of the participants listening to speech at the conference; determining, using the stored video data in conjunction with an automated facial decoding system, whether at least one participant listening to the speech exhibited the indicated facial expression (**Gutta: abstract; Figs. 1-4; paras 8-10, 17: The acoustic cues and expressions of a listener are detected to determine that the listener should now receive the focus**); and
analyzing, in response to determining that the at least one participant listening to the speech exhibited the facial expression, the speech by analyzing the stored video data representing the at least one participant exhibiting the facial expression and stored audio data representing what was being said in the speech when the at least one

participant exhibited the facial expression (**Gutta: abstract; Figs. 1-5; paras 8-10, 17, 36-38, 59-75: The acoustic cues and expressions of a listener are detected to determine that the listener should now receive the focus**) to (**Note that the following is understood to be intended use or purpose because there is no positive recitation that necessitates that the following is required to be performed: MPEP 2106. Therefore, the following phrase does not receive patentable weight**) improve a speaker's speech making ability.

Gutta does not teach indicating a facial expression for which to search from the stored video data; to improve a speaker's speech making ability.

Taylor teaches indicating a facial expression for which to search from the stored video data (**Taylor: Fig. 3: s12-20: col 5, line 63- col 6, line 34; Fig. 23: s302-320**).

Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Taylor into Gutta since Gutta suggests a system for automatically focusing the camera on the speaker on a videoconference using expressions of the speakers and other participants for making the determination in general and Taylor suggests the beneficial use of a system for automatically focusing the camera on the speaker on a videoconference using expressions of the speakers and other participants for making the determination wherein a user specifies the particular expressions that cue for the camera focus to

change to another participant in the analogous art of image processing. It would have been obvious for one of ordinary skill in the art at the time the invention was made to allow the user to specify particular expression cues in an initialization stage in order to allow for flexibility and customization considering that an operator may know how best to customize the system for difference settings and groups/types of participants. Furthermore, one of ordinary skill in the art at the time the invention was made could have combined the elements as claimed by known methods and, in combination, each component functions the same as it does separately. One of ordinary skill in the art at the time the invention was made would have recognized that the results of the combination would be predictable.

Erten teaches analyzing, in response to determining that the at least one participant listening to the speech exhibited the facial expression, the speech by analyzing the stored video data representing the at least one participant exhibiting the facial expression and stored audio data representing what was being said in the speech when the at least one participant exhibited the facial expression to improve a speaker's speech making ability (**Erten: abstract; Fig. 1-3 and 14-16; paras 3 and 7-22**).

Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Erten into Gutta since Gutta suggests a system that recognizes and processes expression and speech information in general and Erten suggests the beneficial use of a system that recognizes and

processes expression and speech information in order to enhance the speaker's speech since "Unfortunately, speech often occurs in the presence of noise. This noise may take many forms such as natural sounds, machinery, music, speech from other people, and the like. Traditionally, such noise is reduced through the use of acoustic filters. While such filters are effective, they are frequently not adequate in reducing the noise content in a speech signal to an acceptable level" (Erten: para 5) in the analogous art of image processing. Furthermore, one of ordinary skill in the art at the time the invention was made could have combined the elements as claimed by known methods and, in combination, each component functions the same as it does separately. One of ordinary skill in the art at the time the invention was made would have recognized that the results of the combination would be predictable.

As per claim 4, Gutta in view of Taylor and Erten teaches the method of Claim 1 wherein the analyzing step includes the step of analyzing the stored video data representing the at least one participant exhibiting the facial expression and stored audio data representing what was being said in the speech when the at least one participant exhibited the facial expression (**Gutta: abstract; Figs. 1-5; paras 8-10, 17, 36-38, 59-75**).

Gutta in view of Erten does not teach includes displaying a percentage of participants who exhibited the expression.

Taylor teaches includes displaying a percentage of participants who exhibited the expression (Taylor: Fig. 16a-b; Fig. 33a-b: The expression being exhibited is the physical head angle and direction of view as observed by the camera).

Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Taylor into Gutta since Gutta suggests a audio visual speech processing application in general and Taylor suggests the beneficial use of displaying the proportion of participants exhibiting an expression (directional glance) as to provide an indication of the proportion of time that a participant exhibited a certain gaze in the analogous art of speech and video processing. Furthermore, one of ordinary skill in the art at the time the invention was made could have combined the elements as claimed by known methods and, in combination, each component functions the same as it does separately. One of ordinary skill in the art at the time the invention was made would have recognized that the results of the combination would be predictable.

Arguments made in rejecting claims 9, 17, and 25 are analogous to arguments for rejecting claim 1. Note that limitations present only in the preamble are not given patentable weight.

Arguments used to reject claims 12, 20, and 28 are analogous to arguments used to reject claim 4.

Claims 2, 3, 5, 10, 11, 13, 18, 19, 21, 26, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020101505 (Gutta) in view of USPN 7117157 (Taylor) and USPGPubN 20020116197 (Erten) as applied to claims 1, 9, 17, and 25 respectively, and further in view of USPN 6585521 (Obrador).

As per claim 2, Gutta in view of Taylor and Erten teaches the method of Claim 1 wherein analyzing the stored video data representing the at least one participant exhibiting the facial expression and stored audio data representing what was being said in the speech when the at least one participant exhibited the facial expression (**Gutta: abstract; Figs. 1-5; paras 8-10, 17, 36-38, 59-75**).

Gutta in view of Taylor and Erten does not teach includes charting expressions exhibited by the at least one participant over time.

Obrador teaches includes charting expressions exhibited by the at least one participant over time (**Obrador: Fig. 4a: 480; Figs. 4-6**).

Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Obrador into Gutta since Gutta suggests a audio visual speech processing application in general and Obrador suggests the beneficial use of charting for speech video indexing based on user emotional

feedback as to "Video indexing allows a user to have easy access to different sections of the video sequence" (Obrador: col 1, line 21) in the analogous art of speech and video processing. Furthermore, one of ordinary skill in the art at the time the invention was made could have combined the elements as claimed by known methods and, in combination, each component functions the same as it does separately. One of ordinary skill in the art at the time the invention was made would have recognized that the results of the combination would be predictable.

As per claim 3, Gutta in view of Taylor and Erten teaches the method of Claim 1 wherein the analyzing step includes the step of analyzing the stored video data representing the at least one participant exhibiting the facial expression and stored audio data representing what was being said in the speech when the at least one participant exhibited the facial expression (**Gutta: abstract; Figs. 1-5; paras 8-10, 17, 36-38, 59-75**).

Gutta in view of Taylor and Erten does not teach includes displaying a percentage of time the expression is exhibited by the at least one participant.

Obrador teaches includes displaying a percentage of time the expression is exhibited by the at least one participant (**Obrador: Fig. 4a: 430, 440; Figs. 4-6**).

As per claim 5, Gutta in view of Taylor and Erten teaches the method of Claim 1 wherein the analyzing step includes the step of analyzing the stored video data representing the at least one participant exhibiting the facial expression and stored audio data representing what was being said in the speech when the at least one participant exhibited the facial expression (**Gutta: abstract; Figs. 1-5; paras 8-10, 17, 36-38, 59-75**).

Gutta in view of Taylor and Erten does not teach includes displaying a percentage of time participants exhibited an expression.

Obrador teaches includes displaying a percentage of time participants exhibited an expression (**Obrador: Fig. 4a: 430, 440; Figs. 4-6**).

Arguments made in rejecting claims 10, 18, and 26 are analogous to arguments for rejecting claim 2.

Arguments made in rejecting claims 11, 19, and 27 are analogous to arguments for rejecting claim 3.

Arguments made in rejecting claims 13, 21, and 29 are analogous to arguments for rejecting claim 5.

Claims 6, 7, 14, 15, 22, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020101505 (Gutta) in view of USPN 7117157 (Taylor) and USPGPubN 20020116197 (Erten) as applied to claims 1, 9, 17, and 25 above, and further in view of USPN 6404438 (Hatlelid).

As per claim 6, Gutta in view of Taylor and Erten teaches the method of Claim 1 wherein the step of determining whether at least one participant listening to the speech exhibited the indicated facial expression (**Gutta: abstract; Figs. 1-5; paras 8-10, 17, 36-38, 59-75**) includes the step of passing the data through a filter for filtering out the expression (**Gutta: Figs. 3-5; para 10 34, 40-58**).

Gutta in view of Taylor and Erten does not teach passing the data through a cultural filter for filtering out the expression if it is a culturally based expression.

Hatlelid teaches passing the data through a cultural filter for filtering out the expression if it is a culturally based expression (**Fig. 7: the phrases in 804 pertain to cultures: col 11, line 13 – col 12, line 67; Also Figs. 3-6**).

Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Hatlelid into Gutta since Gutta suggests a communication environment that assesses users/speakers expressions and uses the determinations to enhance communication in general and Hatlelid suggests

the beneficial use of a communication environment that assesses users/speakers expressions and uses the determinations to enhance communication wherein individual and cultural personality filters are used as to "reflect generally the user's own behavior and personality... a user can select from a variety of personality types to represent the user, including 'hip-hop,' 'upper-class,' 'rocker', or the like" (Hattlelid: col1 , lines 19-52) in the analogous art of image processing. Furthermore, one of ordinary skill in the art at the time the invention was made could have combined the elements as claimed by known methods and, in combination, each component functions the same as it does separately. One of ordinary skill in the art at the time the invention was made would have recognized that the results of the combination would be predictable.

Arguments made in rejecting claims 14, 22, and 30 are analogous to arguments for rejecting claim 6.

As per claim 7, Gutta in view of Taylor and Erten teaches the method of Claim 1 wherein the step of determining whether at least one participant listening to the speech exhibited the indicated facial expression (**Gutta: abstract; Figs. 1-5; paras 8-10, 17, 36-38, 59-75**) includes the step of passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant (**Gutta: Figs. 3-5; para 10 34, 40-58**).

Hatlelid also teaches passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant (Fig. 7: col 11, line 13 – col 12, line 67; Also Figs. 3-6 and 11-14).

Arguments made in rejecting claims 15 and 23 are analogous to arguments for rejecting claim 7.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 9, 17, and 25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, 15, and 22 of U.S. Patent No. 20050131744 in view of USPGPubN 20020101505 (Gutta), USPN 7117157 (Taylor),

and USPPGPubN 20020116197 (Erten). The scope of both sets of claims from both applications is essentially identical. Where Applicant deems that the scope of the sets of claims from the separate applications differs, Applicant is referred to the secondary references as applied (cited) in the 35 USC 103 rejection section above.

Claims 6, 14, 22, and 30 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 9, 16, and 23 of U.S. Patent No. 20050131744 in view of USPPGPubN 20020101505 (Gutta), USPN 7117157 (Taylor), USPPGPubN 20020116197 (Erten), and USPN 6404438 (Hattelid). The scope of both sets of claims from both applications is essentially identical. Where Applicant deems that the scope of the sets of claims from the separate applications differs, Applicant is referred to the secondary references as applied (cited) in the 35 USC 103 rejection section above.

Claims 7, 15, and 23 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3, 10, 17, and 24 of U.S. Patent No. 20050131744 in view of USPPGPubN 20020101505 (Gutta), USPN 7117157 (Taylor), USPPGPubN 20020116197 (Erten), and USPN 6404438 (Hattelid). The scope of both sets of claims from both applications is essentially identical. Where Applicant deems that the scope of the sets of claims from the separate applications differs, Applicant is referred to the secondary references as applied (cited) in the 35 USC 103 rejection section above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Atiba Fitzpatrick whose telephone number is (571) 270-5255. The examiner can normally be reached on M-F 10:00am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571)272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Atiba Fitzpatrick

Patent Examiner

/Samir A. Ahmed/

Supervisory Patent Examiner, Art Unit 2624